

US EPA ARCHIVE DOCUMENT

EPCRA (Emergency Planning and  
Community Right to Know Act)  
a k a SARA Title III

Henry T. Hudson, Environmental Engineer

404-562-9188

[HUDSON.HENRY@EPAMAIL.EPA.GOV](mailto:HUDSON.HENRY@EPAMAIL.EPA.GOV)

# Why EPCRA?

- ❑ Key hazardous chemical releases
  - Bhopal, India (1984)
  - Institute, West Virginia (1985)
- ❑ Increased public concern
- ❑ Worker right-to-know laws
  - OSHA Hazard Communication Standard (HAZCOM)
- ❑ State right-to-know laws



# EPCRA Overview

- ❑ Purpose of Emergency Planning
- ❑ Protect public health and safety, and the environment
- ❑ Integrate with local emergency planning efforts
- ❑ Purpose of Community Right-to-Know

## EPCRA Overview (continued)

- ❑ Support and focus state and local planning activities
- ❑ Increase community awareness of chemical hazards
- ❑ Support chemical accident and pollution prevention initiatives



# Three EPCRA Subtitles

## EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986

Title III of SARA (Superfund Amendments Reauthorization Act) is made up of three principal subtitles:

Subtitle A - Emergency Planning and Notification

Subtitle B - Reporting Requirements

Subtitle C - General Provisions

# EPCRA Overview

SECTION	COVERAGE/ TOPIC	REQUIREMENT	RELEVANT CHEMICAL LIST	THRESHOLDS	SUBMIT TO:
301-303	Emergency Planning	LEPC Emergency Plan, EHS Notification	356 Extremely Hazardous Substances	Specified Threshold Planning Quantities (TPQ: 1 - 10,000 #)	SERC* LEPC
304	Emergency Notification	Accidental Release Reporting	EHS and CERCLA102(a) Substances	Specified Reportable Quantities	SERC* LEPC
311	Hazardous Chemical Inventory	MSDSs or List of Chemicals	OSHA Hazardous Chemicals (No Specific List)	10,000 #; or, if EHS, 500 #, or TPQ - whichever is lower	SERC* LEPC Local Fire Dept.
312	Hazardous Chemical Inventory	Inventories, Hazards, and Locations (Tier I or II)	OSHA Hazardous Chemicals (No Specific List)	10,000 #; or, if EHS, 500 #, or TPQ - whichever is lower	SERC* LEPC Local Fire Dept.
313	Toxic Chemical Release Reporting	Total Annual Release, Waste Management, & Source Reduction Data - PPA (Form R)	Over 600 Toxic Chemicals and Chemical Categories	25,000 # manufactured or processed; 10,000 # otherwise used	EPA State

Summary Chart of EPCRA Requirements (as of January 1, 1999)

# EPCRA Sections 301-303

## Emergency Planning



# Emergency Planning Requirements (EPCRA Sections 301-303)

- ❑ Section 301: Establish State Emergency Response Commissions (SERCs), designate local emergency planning districts, and appoint Local Emergency Planning Committees (LEPCs for each district)
- ❑ Section 302: Designate extremely hazardous substances (EHSs) and threshold planning quantities and notification requirements for covered facilities.
- ❑ Section 303: Develop local emergency response plans

# Emergency Planning Infrastructure

- ❑ How state and local emergency planning infrastructure is established
  - Governor designates state emergency response commission (SERC) and SERC membership; or Tribal Chief executive officer designates tribal emergency response commission (TERC)
  - SERC designates local emergency planning districts within state



# Emergency Planning Infrastructure (continued)

- SERC appoints members of local emergency planning committee (LEPC) for each planning district
  - Membership includes industry, police department, fire department, elected officials, and the general public



# Extremely Hazardous Substances (EPCRA Section 302)

- ❑ Selection criteria are based on acute lethal toxicity
- ❑ 356 chemicals initially designated as EHSs
  - Overlap with 138 chemicals with CERCLA hazardous substances
- ❑ EPA can revise the list by adding or deleting
- ❑ Substances identified in 40 CFR part 355

# Facility Notification Requirements (EPCRA Section 302)

- ❑ Facilities subject to emergency planning requirements
  - Any facility (e.g., warehouses, manufacturers) that:
    - Has a quantity of EHS present at any one time that meets or exceeds specified threshold planning quantity (TPQ)
  - or
  - Is designated for participation by SERC



# Emergency Planning Requirements (EPCRA Sections 302-303)

## □ Planning Notification

- Notify SERC or TERC and LEPC
- Designate facility emergency coordinator
- Supply LEPC with planning information, as requested
- Coordinate emergency response planning with community



# Commonly Used Chemicals

CHEMICAL NAME		EHS (TPQ)	RQ
Formaldehyde	CAS 50-00-0	500 lbs	100 lbs
Nicotine	CAS 54-11-5	100 lbs	100 lbs
Parathion	CAS 56-38-2	100 lbs	10 lbs
Cyclohexane	CAS 58-89-9	1000/10,000 lbs	1 lbs
Chloroform	CAS 67-66-3	10,000 lbs	10 lbs
Phenol	CAS 108-95-2	500/10,000 lbs	1000 lbs
Sodium Cyanide	CAS 143-33-9	100 lbs	10 lbs
Potassium Cyanide	CAS 151-50-8	100 lbs	10 lbs
Mercuric acetate	CAS 1600-27-7	500/10,000 lbs	500 lbs

# Commonly Used Chemicals

*(continued)*

CHEMICAL NAME		EHS (TPQ)	RQ
Sulfur dioxide	CAS 7446-09-5	500 lbs	500 lbs
Sulfur trioxide	CAS 7446-11-9	100 lbs	100 lbs
Lithium hydride	CAS 7580-67-8	100 lbs	100 lbs
Hydrofluoric acid	CAS 7664-39-3	100 lbs	100 lbs
Hydrogen fluoride	CAS 7664-39-3		
Nitric acid	CAS 7697-37-2	1,000 lbs	1000 lbs
Phosphorus (yellow or white)	CAS 7723-14-0	100 lbs	1 lbs
Bromine	CAS 7726 -95-6	500 lbs	500 lbs



# Commonly Used Chemicals

*(continued)*

CHEMICAL NAME		EHS (TPQ)	RQ
Chlorine	CAS 7782-50-5	100 lbs	10 lbs
Chromic chloride	CAS 10025-73-7	1/10,000 lbs	1 lbs
Ozone	CAS 10028-15-6	100 lbs	100 lbs
Sodium azide	CAS 26628-22-8	500 lbs	1000 lbs



# EPCRA Section 304

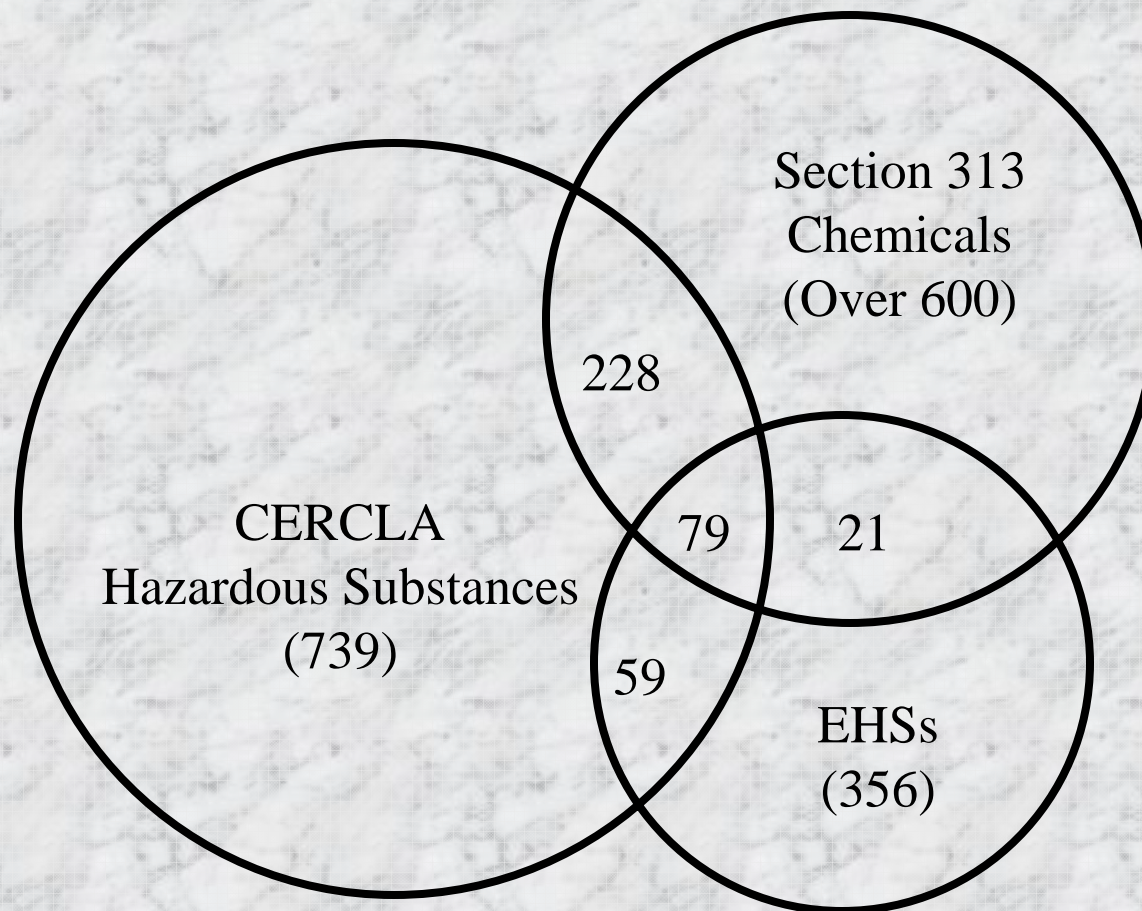
Emergency Release Notification

# Emergency Release Notification

- ❑ Releases of EHSs (40 CFR 355) or Hazardous Substances (40 CFR 302.4) in a reportable quantity (RQ)
  - RQ set by US EPA through rulemaking
  - If RQ not set by EPA, statutory RQ of one pound applies
  - RQ is specified quantity released within a rolling 24-hour period



# Regulated Substances





# Emergency Release Notification

- ❑ Initial immediate notification (via telephone, radio, or in person)
  - For EPCRA Section 304 chemicals & CERCLA Section 103 chemicals, notify:
    - SERCs/TERCs of any state or Tribe likely to be affected by release
    - Emergency Coordinators for LEPCs of any area likely to be affected by release
  - For CERCLA Section 103 chemicals only, notify National Response Center (NRC)

# Emergency Release Notification (*continued*)

- ❑ Reduced reporting for continuous releases
  - Initial notification to the SERC, LEPC, and/or NRC
  - Initial written follow-up to SERC, LEPC, and/or EPA regional offices
  - One-time written follow-up report to EPA regional office one year later (for CERCLA hazardous substances only)
  - Subsequent notification of any statistically significant increases or other changes in the release



# Emergency Release Notification (*continued*)

- ❑ Follow-up written notifications required for non-transportation related releases
- ❑ Releases that are "continuous" and "stable in quantity and rate"
  - Continuous
    - Occurs without interruption or abatement; or
    - Is routine, anticipated, intermittent, and incidental to normal operation or treatment processes
- ❑ "Stable in quantity and rate"
  - Is predictable and regular in amount and rate of emission

# Emergency Release Notification (*continued*)

- ❑ Continuous releases exclude:
  - Accidents
  - System upsets and malfunctions
  - Statistically predicted upsets



# Emergency Release Notification

	<b>CERCLA Section 103</b>	<b>EPCRA Section 304</b>
<b>Chemicals Covered</b>	<b>CERCLA Hazardous Substances (40 CFR 302.4)</b>	<b>CERCLA Hazardous Substances (40 CFR 302.4)</b>  <b>EPCRA Section 302 EHS (Appendix A to 40 CFR 355)</b>
<b>Releases Covered</b>	<b>Any release into the environment</b>	<b>Any potential release with potential for exposure to persons off-site</b>
<b>Notification Requirements</b>	<b>NRC</b>	<b>LEPC(s)</b> <b>SERC(s)</b> <b>TERC(s)</b>

CERCLA Section 103 versus EPCRA Section 304

# Commonly Used Chemicals

CHEMICAL NAME		EHS (TPQ)	RQ
Formaldehyde	CAS 50-00-0	500 lbs	100 lbs
Nicotine	CAS 54-11-5	100 lbs	100 lbs
Parathion	CAS 56-38-2	100 lbs	10 lbs
Cyclohexane	CAS 58-89-9	1000/10,000 lbs	1 lbs
Chloroform	CAS 67-66-3	10,000 lbs	10 lbs
Phenol	CAS 108-95-2	500/10,000 lbs	1000 lbs
Sodium Cyanide	CAS 143-33-9	100 lbs	10 lbs
Potassium Cyanide	CAS 151-50-8	100 lbs	10 lbs
Mercuric acetate	CAS 1600-27-7	500/10,000 lbs	500 lbs



# Commonly Used Chemicals

*(continued)*

CHEMICAL NAME		EHS (TPQ)	RQ
Sulfur dioxide	CAS 7446-09-5	500 lbs	500 lbs
Sulfur trioxide	CAS 7446-11-9	100 lbs	100 lbs
Lithium hydride	CAS 7580-67-8	100 lbs	100 lbs
Hydrofluoric acid	CAS 7664-39-3	100 lbs	100 lbs
Hydrogen fluoride	CAS 7664-39-3		
Nitric acid	CAS 7697-37-2	1,000 lbs	1000 lbs
Phosphorus (yellow or white)	CAS 7723-14-0	100 lbs	1 lbs
Bromine	CAS 7726 -95-6	500 lbs	500 lbs

# Commonly Used Chemicals

*(continued)*

CHEMICAL NAME		EHS (TPQ)	RQ
Chlorine	CAS 7782-50-5	100 lbs	10 lbs
Chromic chloride	CAS 10025-73-7	1/10,000 lbs	1 lbs
Ozone	CAS 10028-15-6	100 lbs	100 lbs
Sodium azide	CAS 26628-22-8	500 lbs	1000 lbs
Benzene	CAS 71-43-2		10 lbs
Ethyl Acrylate	CAS 140-88-5		1000 lbs
Xylene(mixed isomers)	CAS 1330-20-7		100 lbs
Mercury	CAS 7439-97-6		1 lbs



# EPCRA Sections 311-312

## Hazardous Chemical Inventory Reporting

# EPCRA Sections 311-312

- ❑ Chemical inventory reporting
  - Section 311 - Material Safety Data Sheets (MSDSs)
  - Section 312 - Tier II forms
- ❑ Regulated facilities
  - Facilities subject to OSHA's HAZCOM (29 CFR 1910.1200)
    - No specific list of hazardous chemicals
    - HAZCOM applies to broad categories of chemicals, including any chemical that poses a physical or health hazard



# EPCRA Sections 311-312

- ❑ Regulated chemicals and reporting thresholds
  - 500 # or TPQ, whichever is less, for EHS (include any EHS in a mixture)
  - 10,000 # for other OSHA hazardous chemicals
  - Maximum quantity on-site at any one time
  - Most aggregate EHS quantities present in raw materials and all mixtures

# EPCRA Sections 311-312

- ❑ Submit sections 311 and 312 information to:
  - SERC or TERC
  - LEPC
  - Local fire department



# EPCRA Sections 311-312

## □ Reporting for Mixtures

- Report on mixtures as a whole or by hazardous components
- Choose either reporting method
- Maintain consistent method for reporting under EPCRA Sections 311 and 312

# MSDS Reporting (EPCRA Section 311)

- ❑ Section 311 reporting requirements
  - Material Safety Data Sheets (MSDSs); or
  - List of hazardous chemicals grouped by EPA's five physical and health hazard categories:
    - Fire
    - Sudden release of pressure
    - Reactivity
    - Immediate (acute)
    - Delayed (chronic)



# MSDS Reporting (EPCRA Section 311)

- ❑ Submit original list or copies of MSDSs within 90 days of exceeding reporting thresholds
- ❑ Update submission within 90 days of obtaining significant new information

# Tier II Reporting (EPCRA Section 312)

- ❑ Section 312 reporting requirements
  - Report chemical-specific information on Tier II form
  - Submit reports annually on or before March 1 for previous calendar year's activities



# EPCRA Sections 311-312

- ❑ States may require facilities to:
  - Submit Tier II form
  - Submit state reporting forms
  - Report lists of hazardous chemicals
  - Report exact quantities
  - Provide additional information (e.g., UN registry number)
- ❑ States may set lower reporting thresholds
- ❑ States may have a fee system

# EPCRA Sections 311-312

- ❑ Public availability of inventory information
  - EPCRA Sections 311 and 312 information available to the general public upon request from SERC/TERC or LEPC
  - General public has the right to request, through the SERC/TERC or LEPC, additional information



## 311 & 312 Reporting Thresholds

For Extremely Hazardous Substances (EHSs) designated under Section 302 of Title III, the reporting threshold is 500 pounds (or 227 kg) or the threshold planning quantity (TPQ), whichever is lower.

For all other hazardous chemicals for which facilities are required to have or prepare an MSDS, the minimum reporting threshold is 10,000 pounds (or 4.450 kg).

# Reporting on Mixtures

- ❑ Reports on mixtures or hazardous components should:
  - Provide the required information on each component of a mixture which is a hazardous chemical by calculating the quantity of each hazardous chemical in the mixture; or
  - Provide the required information on the mixture itself by reporting on the total quantity of the mixture.



# EPCRA SECTION 313

## EPCRA SECTION 313 TOXIC CHEMICAL RELEASE INVENTORY (TRI)



# TRI: THREE POINTS TO ID THOSE WHO MUST REPORT

## ◆ Point No. 1 of 3 - SIC Codes

Private-sector facilities in the following SIC codes:

- 20 through 39,
- 10 (except 1011, 1081, and 1094),
- 12(except 1241),
- 4911, 4931, 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce),
- 4953 (limited to facilities regulated under RCRA Subtitle C),
- 5169, 5171, 7389 (limited to facilities primarily engaged in solvent recovery services on a contract fee basis); **AND**



## TRI: THREE POINTS TO ID THOSE WHO MUST REPORT

### ◆ Point No. 2 of 3 – No. of Employees

Those with 10 or more full time employees  
(equivalent of 20,000 hours per year); AND

### ◆ Point No. 3 of 3 – Exceeding Threshold Amounts

- ◆ Those that exceed threshold amounts for manufacturing, or processing, or otherwise using listed chemicals in a given year.

## THRESHOLD AMOUNTS THAT TRIGGER TRI REPORTING (EPCRA SECTION 313)

- ◆ For a Section 313 chemical, a facility meeting all other criteria must file a Form R report for that chemical *if the facility*:
  - ◆ Manufactured (including imported) more than 25,000 pounds per year, or
  - ◆ Processed more than 25,000 pounds per year, or
  - ◆ Otherwise used more than 10,000 pounds per year (this includes amounts imported)



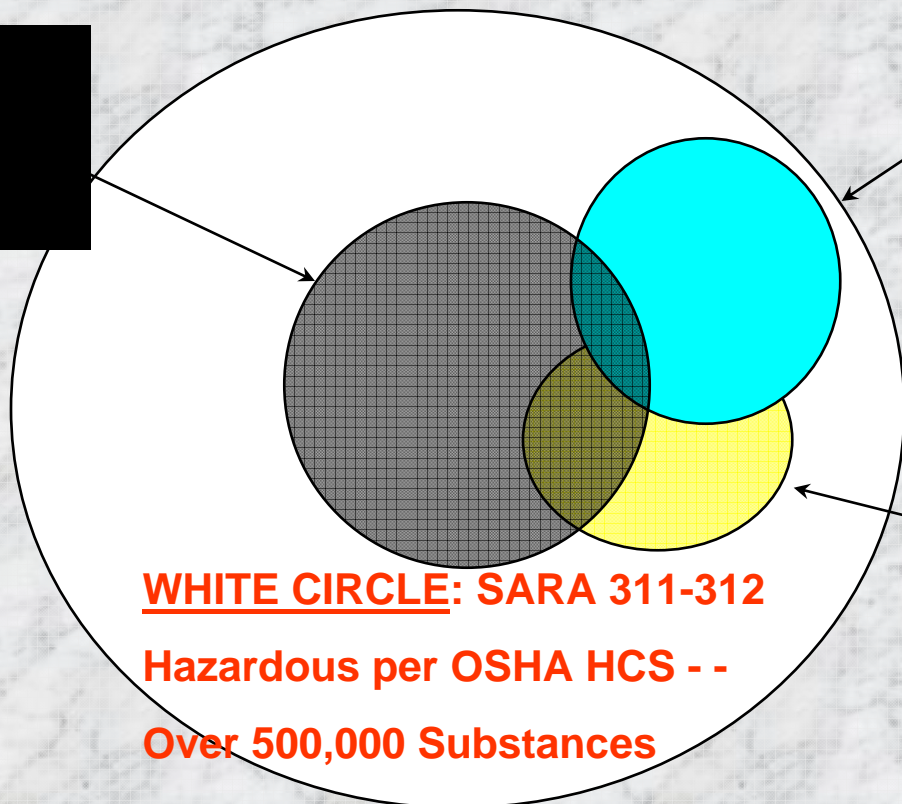
## INTERDEPENDENCE OF CHEMICAL LISTS IN SARA TITLE III (EPCRA)

CERCLA 102(a)  
(SUPERFUND)  
Hazardous  
Substances

SARA Section 302  
Extremely  
Hazardous  
Substances - 360

Section 313 Toxic  
Chemicals - 317

WHITE CIRCLE: SARA 311-312  
Hazardous per OSHA HCS - -  
Over 500,000 Substances



# Title III List of Lists

## SAMPLE OF LAYOUT

Cas Number	Chemical Name	Sec. 302(EHS) TPQ	Section EHS RQ	304 CERCLA RQ	CAA 112R TQ	Sec 313	RCRA Code
74-90-8	Hydrocyanic acid	100	10	10	2500	x	P063
74-95-3	Methyl bromide			1000		313	U068
74-98-6	Propane				10000		